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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR                   | ATTORNEY DOCKET NO.       | CONFIRMATION NO.       |
|---|-------------|--|---------------------------|------------------------|
| 10/559,722  | 12/05/2005  | Pedro Alvares Ribeiro do Carmo Pacheco | 38486-01                  | 4790                   |
| 46591   | 7590        | 09/06/2007                             |                           |                        |
| NEXSEN PRUET, LLC<br>P.O. BOX 10648<br>GREENVILLE, SC 29603 |             |  | EXAMINER<br>VO, HIEN XUAN |                        |
|   |             |  | ART UNIT<br>2863          | PAPER NUMBER           |
|   |             |  | MAIL DATE<br>09/06/2007   | DELIVERY MODE<br>PAPER |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

Application No.

10/559,722

Applicant(s)

PACHECO, PEDRO ALVARES  
RIBEIRO DO CARMO

Examiner

Hien X. Vo

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 05 December 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 December 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 12/05/05.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Information Disclosure Statement***

1. The information disclosure statement (IDS) submitted on 12/05/05. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

### ***Specification***

2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

3. The abstract of the disclosure is objected to because the form and legal phraseology often used in patent claims, such as "said gantry", "the said gantry" (line 2), "said sensor", "said controller" (line 4) had been used. Correction is required. See MPEP § 608.01(b).

***Claim Objections***

4. Claims 3, 6, 8-14 objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim should refer to other claims in the alternative only, and/or cannot depend from any other multiple dependent claim See MPEP § 608.01(n). Accordingly, the claims 3, 6, 8-14 not been further treated on the merits.

5. Claims 1-5, 7, 10, 12, 14, 17 objected to because of the following informalities: these claims are typo the phrase "the said".

Claim 1 recites the limitation "the said structure" (lines 5,6), "the said main structure" (lines 9-10);

Claim 2 recites the limitation "the said controller" (line 1);

Claim 3 recites the limitation " the said computer program" (line 1), "the said data", "the said sensor" (line 2), "the said actuator" (line 3), "the said unbonded cable" (line 4);

Claim 4 recites the limitation "the said controller" (line 1), "the said at least one actuator" (line 2);

Claim 5 recites the limitation "the said unbonded cable" (line 1);

Claim 7 recites the limitation "the said main structure" (line 2);

Claim 10 recites the limitation "the said unbonded cable" (line 2);

Claim 12 recites the limitation "the said main structure" (line 3);

Claim 14 recites the limitation "the said or each sensor" (lines 1-2);

Claim 17 recites the limitation "the said pre-existing gantry" (line 2).

Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-17 rejected under 35 U.S.C. 102(b) as being anticipated by Lee (U.S. Patent No. 5,154,561).

With respect to claim 1, Lee discloses an automated all-weather cargo transfer system including a main structure (see e.g. Fig. 2), at least one unbonded cable ( see e.g. Fig. 3a), a first anchorage for securing one end of said unbonded cable to the said structure and a second anchorage for securing the opposite end of said unbonded cable to the said structure (see e.g. Figs. 2-5B); characterized in that there is provided at least one sensor unit capable of measuring a physical variation in the said main structure (see e.g. Fig. 25), an electronic interface converting said measurements into readable data and transmitting said data to a controller (see e.g. Fig. 23, col. 22, lines 17-25); said controller being capable of activating an actuator which rests between said structure and said unbonded cable and which is capable of increasing or decreasing the tension of said unbonded cable in accordance to the measurements taken (see e.g. Figs. 26-28).

With respect to claims 2-4, Lee discloses the invention as claimed including the controller is at least a computer or automaton capable of running at least a computer

program or processing code (see e.g. col. 21, lines 61-68), the computer program or processing code is capable of reading the said data transmitted by the sensor and calculating the intensity and/or direction of the force to be applied by the actuator on the unbonded cable (see e.g. col. 22, lines 1-16, col. 23, lines 9-21, col. 24, lines 20-21); the controller is a human operator controlling manually a switch board connected to the at least one actuator (see e.g. col. 29, lines 45-68).

With respect to claims 6-11, Lee discloses the invention as claimed including the unbonded cable can be internal or external to the contours of said main structure (see e.g. Figs. 3A-3B); the unbonded cable has a linear or multi-linear layout (see e.g. Fig. 3B); at least one of said anchorages is moveable away and towards in relation to the said main structure (see e.g. Fig. 5B); one actuator is able to move one or more movable anchorages (see e.g. Fig. 11); said actuator is at least one hydraulic jack placed in between an anchorage and said main structure (see e.g. Fig. 22); said actuator is at least one extendable strut with a first end removably connected to a saddle that supports the said unbonded cable and a second end removably connected to the main structure the strut or struts which support said saddles are retractable or movable, by translation or rotation (see e.g. col. 8, lines 24-49).

With respect to claims 12-17, Lee discloses the invention as claimed including the or each sensor is located in the neighborhood, on the surface or interior of the elements of the gantry, or is external to the said main structure (see e.g. Fig. 26); said sensor is an extensometer, pressure transducer a LVDT, a laser sensor, a charge cell, an inclinometer, a piezometric sensor or similar device (see e.g. col. 23, line 3-27); said

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data measured by said or each sensor useful for the calculation of the said intensity and/or direction of the forces to be applied by the actuator are at least pressures, deflections, rotations, deformations, stresses or load levels (see e.g. col. 23, lines 33-68); the transmission of said readable data between said sensor and said controller and the transmission of said processed data between said controller and said or each actuator is done by electronic circuit, optic-fiber communication, radio frequency, infrared, WI-FI or BlueTooth technology (see e.g. col. 21, lines 61-68); it is capable of providing support for formwork (*in situ* casting structures) or for precast segments, precast girders, or even for other material structural elements; a self-adjusting prestressing system, characterized in that the said pre-existing gantry is equipped with the elements of claim 1 (see e.g. Fig. 23-33).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hien X. Vo whose telephone number is (571) 272-2282. The examiner can normally be reached on M-F (8:00-5:30) First Friday Off.

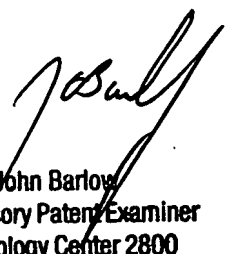
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached on (571) 272-2269. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

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you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Hien Vo  
08/31/07



John Barlow  
Supervisory Patent Examiner  
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